

AMENDMENTS TO THE DRAWINGS:

The attached drawing sheets include changes to Figs. 1 and 3J. These sheets replace the original sheets that includes Figs. 1 and 2 and Figs. 3I and 3J, respectively. In Replacement Sheet 1, Fig. 1 was amended to include a "Prior Art" legend. In Replacement Sheet 2, Fig. 3J was amended to change reference number "69a" to "69b".

Attachments:

Two (2) Replacement Sheets

One (1) Annotated Sheet showing change

REMARKS

This communication is a full and timely response to the aforementioned non-final Office Action dated February 28, 2006. By this communication, claims 1 and 11, and Figs. 1 and 3J have been amended. Changes have been made to claim 1 to emphasize its original scope, and support for the claim can be found variously throughout the Specification, for example, at page 6, line 30 through page 7, line 14. Claim 11 has been changed for readability. Claims 1-23 are pending.

Objections to the Drawings

Fig. 1 was objected to for failing to include a prior art legend. Fig. 1 has been amended to address the Examiner's concerns. In addition, Fig. 3J has been amended to change reference number "69a" to "69b". Applicants respectfully request that the objection to the drawings be withdrawn.

Rejections Under 35 U.S.C. §102

Claims 1-23 were rejected under 35 U.S.C. §102(b) as anticipated by *Kozaki* (U.S. Patent Pub. No. 2002/00536760). Applicants respectfully traverse this rejection.

Independent claim 1 recites a laser diode comprising, among other elements, a buried layer having a contact hole corresponding to the ridge of the upper material layer and a protective layer formed on the buried layer. Independent claim 11 recites a manufacturing method of a laser diode comprising, among other elements, the steps of forming a buried layer on top of the structure to cover the surface of the ridge and forming a protective layer and an etch back material layer on the surface of the buried layer.

Kozaki discloses a nitride semiconductor layer having a series of layers formed on a substrate 101. Of particular note, *Kozaki* discloses that an electron confinement layer 108 is

formed on an active layer 107 and a p-type optical guide 109 is formed on the electron confinement layer 108. A ridge stripe is formed on the p-type optical guide 109 wherein the ridge stripe includes a p-type cladding layer 110 and p-type contact layer 111. A protective film 162 is formed on the ridge stripe and covers the p-type optical guide 109. A p-type electrode 120 is formed over the top of the ridge stripe and covers the protective film 162.¹ A dielectric film 164 is formed over the p-type electrode 120 and along the sides of the nitride semiconductor device such that layers 103-109 are encased by the dielectric layer.

Kozaki fails to teach or suggest a buried layer having a contact hole as recited in claims 1 and 11. The Examiner alleges that the protective film 162 and the dielectric film 164 taught by *Kozaki* are analogous to the buried layer and the protective layer, respectively, as recited in claims 1 and 11. Claims 1 and 11 recite that an upper electrode is formed on a protective layer and the protective layer is formed on the buried layer. In contrast, *Kozaki* discloses that the p-type electrode 120 is formed over the protective film 162, and the dielectric film 164 is formed over the p-type electrode 120.

Assuming arguendo, that the Examiner's interpretation of the protection film 162 and the dielectric film 164 are accurate, the structural relationship between these elements of *Kozaki* is not analogous to the buried layer, the protective layer, and the upper electrode as recited in claims 1 and 11. As defined by claims 1 and 11, the protective layer is formed on the buried layer and the upper electrode is formed on the protective layer. In contrast, *Kozaki* discloses that the p-type electrode 120 is formed between the protective film 162 and the dielectric film 164. For at least this reason, *Kozaki* fails to anticipate claims 1 and 11.

To properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. See Verdegall Bros. v. Union Oil Co. of Calif.,

¹ The lead-line extending from reference number 162 should extend to the layer above the optical guide layer 109, according to paragraphs [0168] and [0171] for instance of *Kozaki*.

814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987. *Kozaki* fails to disclose, teach, or suggest every element recited in independent claims 1 and 11, therefore these claims are not anticipated by *Kozaki*. Accordingly, Applicants request that the rejection of claims 1 and 11 under 35 U.S.C. §102 be withdrawn, and these claims be allowed.

Claims 2-10 depend from claim 1 and claims 12-23 depend from claim 11. By virtue of this dependency, Applicants submit that these claims are allowable for at least the same reasons given above with regard to their respective base claims. In addition, these claims are further distinguishable over *Kozaki* by the additional elements recited therein. Applicants respectfully request, therefore, that the rejection of claims 2-10 and 12-23 under 35 U.S.C. §102 be withdrawn, and these claims be allowed.

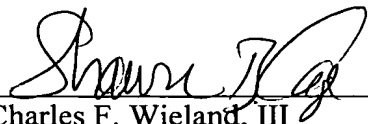
Conclusion

Based on at least the foregoing amendments and remarks, Applicant submits that claims 1-23 are allowable, and this application is in condition for allowance. Accordingly, Applicant requests a favorable examination and consideration of the instant application. In the event the instant application can be placed in even better form, Applicant requests that the undersigned attorney be contacted at the number below.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: May 23, 2006

By: 
Charles F. Wieland, III
Registration No. 33,096

Shawn B. Cage
Registration No. 51,522

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

Annotated Sheet Showing Change

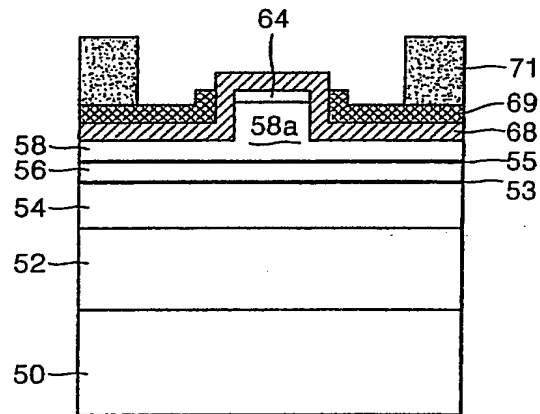


FIG. 3J

